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GEOGRAPHIC VARIATION IN THE HISPANIOLAN FROG *ELEUTHERODACTYLUS WETMOREI* COCHRAN

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Eleutherodactylus wetmorei Cochran is a brightly colored leptodactylid frog which was described from a series of four specimens collected by Dr. Alexander Wetmore at Fond des Nègres, Département du Sud, Haiti. The holotype and paratypes were taken from a communal nest of the Palm Chat (*Dulus dominicus* Linnaeus) along with two *Hyla dominicensis* Tschudi (Cochran, 1932:191). Later, Cochran (1941:76-77) reported 11 additional specimens of *E. wetmorei*, collected by W. L. Abbott, from Moron, Département du Sud, Haiti, near the extreme western tip of the Tiburon Peninsula. Both the typical and Abbott specimens were especially poorly preserved, but the frog is a very distinctive one in pattern (and in coloration in life). Two populations of *E. wetmorei* have the concealed surfaces of the hindlimbs with dark patterns on the brightly colored (orange to yellow) ground color; Cochran pointed out, however, that the Moron frogs seemed to lack this distinctive thigh pattern, and Shreve and Williams (1963:324) commented that two of the Moron series they examined lacked thigh markings, in contrast to the single individual they had from the Pétionville area.

The two-note voice of *E. wetmorei* is prominent in nocturnal choruses throughout southern Haiti; the frogs, however, are arboreal (as the situation for the type series intimates), and collecting series of *E. wetmorei* is extremely difficult. Through the efforts of Dr. Ernest E. Williams, several excellent lots of *E. wetmorei* are now available from some Haitian localities, including the southern slope of the Massif de la Selle in the vicinity of Thiote, and from the area between Jérémie and Dame-Marie at the extreme tip of the Tiburon Peninsula. The latter specimens amply confirm the

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distinctness of the distal peninsular population of *E. wetmorei*, and the Thiote specimens likewise demonstrate characters (which also occur elsewhere along the Dominico-Haitian border) distinctive to the populations in that region. Remarkably, there is now more material of these two peripheral populations than there is of the nominate subspecies, although I have taken specimens of the latter at Camp Perrin on the southern foothills of the Massif de la Hotte. Aside from my own material in the Albert Schwartz Field Series (ASFS), I have examined specimens in the American Museum of Natural History (AMNH), Carnegie Museum (CM), Museum of Comparative Zoology (MCZ), and United States National Museum (USNM); for the loan of these frogs I am grateful to Charles M. Bogert and George W. Foley, Neil D. Richmond and Clarence J. McCoy, Jr., Ernest E. Williams, and Doris M. Cochran. In the field I have had the capable assistance of Ronald F. Klinikowski, David C. Leber, and Richard Thomas. Messrs. Leber and Thomas were successful in securing the first specimen of *E. wetmorei* from the República Dominicana; it was this frog, strikingly different from material I had seen in life at Camp Perrin, which prompted the present study. The excellence of the illustrations is once more due to the work of Mr. Leber.

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SYSTEMATIC ACCOUNTS

ELEUTHERODACTYLUS WETMOREI Cochran, 1932

Eleutherodactylus wetmorei Cochran, 1932, Proc. Biol. Soc. Washington, 45: 191.

Eleutherodactylus auriculatus wetmorei, — Cochran, 1941, Bull. U. S. Natl. Mus., 177:74.

Eleutherodactylus varians wetmorei, — Schwartz, 1960, Sci. Publ. Reading Public Mus. and Art Gallery, 11:6.

Eleutherodactylus wetmorei, — Schwartz [in press], Studies Fauna Curaçao and other Caribbean Islands.

Remarks: Although *E. wetmorei* was originally named as a distinct species, Cochran later (1941:75) considered *wetmorei* closely related to *E. auriculatus* Cope (= *E. varians* Gundlach and Peters). Later still, I (Schwartz, 1960:6) suggested that *wetmorei* might indeed be correctly regarded as a subspecies of *E. varians*, since the two forms have several structural and pattern features in common (although chromatically they differ strikingly). The

calls of *E. varians* and *E. wetmorei* are, however, very different (Schwartz, in press), the call of *E. wetmorei* resembling that of the Cuban *E. eileenae* Dunn rather than *E. varians*. Accordingly, I have once more separated *E. wetmorei* nomenclatorially from *E. varians*; the former species is limited to Hispaniola, the latter to Cuba and the Isla de Pinos.

ELEUTHERODACTYLUS WETMOREI WETMOREI Cochran

Type locality: Fond des Nègres, Dépt. du Sud, Haiti; holotype, USNM 72617.

Definition: A subspecies of *E. wetmorei* characterized by anterior and posterior faces of thighs reticulate black to dark brown on an orange ground, and groin orange with similarly colored reticulum (Fig. 2A).

Remarks: There are only ten specimens which I assign to the nominate subspecies; of these, the two paratypes (USNM 72618-19) are in extremely poor condition, and three (ASFS X2993-95) are juveniles with snout-vent lengths between 11.5 and 18.2 (all measurements in millimeters). Mensural data for a single male (ASFS X2684) are: snout-vent length 28.7, head length 11.3, head width 12.8, tympanum 2.0, eye 4.0, naris to eye 3.8, femur 12.8, tibia 15.2, fourth toe 11.5; measurements of four females (extremes and means) are: snout-vent length 33.5-35.1 (34.2); head length 12.0-13.5 (12.9); head width 13.3-14.7 (14.1); tympanum 2.2-2.5 (2.3); eye 3.8-4.8 (4.2); naris to eye 3.7-4.5 (4.2); femur 14.1-15.2 (14.8); tibia 17.1-17.8 (17.4); fourth toe 13.4-14.3 (13.8).

The condition of the topotypes of *E. w. wetmorei* precludes absolute assurance that the material from Camp Perrin is identical in pattern to them. Cochran's figure (1941:75, fig. 24) however, shows quite clearly that the anterior and posterior faces of the thigh are darkly reticulate, and these markings plus the pale interocular bar are still barely visible on the holotype. Although Fond des Nègres lies in the extreme northeastern foothills of the Massif de la Hotte and Camp Perrin lies in the southwestern foothills of the same range, the Camp Perrin specimens agree fairly closely in thigh design with the Fond des Nègres material. Accordingly I consider the Camp Perrin specimens to be *E. w. wetmorei*, although there is a possibility that, with the acquisition of fresh topotypical material, the Camp Perrin population will be found to differ from that at Fond des Nègres.

Fresh specimens of *E. w. wetmorei* from Camp Perrin are tan to brownish tan in life, with a very faint pair of dorsolateral pale lines (ASFS X2684) present in one individual. The posterior and anterior faces of the thigh, the groin, and the upper surface of the pes were orange (pl. 2 D 12; all color designations from Maerz and Paul, 1950) in life, and the entire ventral surface was yellow (pl. 9 L 5). Both faces of the thighs, as well as the groin, are overlaid with a dark brown to greenish black reticulum; reticulum remnants more or less outline the orange groin patch and separate the bright color from the more drab dorsal tan. The sides are at times vaguely marked with a brown reticulum which extends, in a diluted fashion, onto the chest as an area of brownish dots or flecks. The throat may be flecked with brown, and there is a pair of yellow-orange glands on the posterior portion of the throat; inguinal glands are absent in the species. The underside of the hindlimbs is usually marked with brown continuations of the anterior and posterior thigh pattern, and the crus also shows some ventral brown reticulations. The ventral crural reticulum is a continuation of the anterior and posterior crural reticulum, occupying the concealed surfaces of the crus. All specimens have a pale (tan to buffy) broad interocular bar, with one exception (MCZ 35199) which now appears to lack this feature. In the juveniles, the entire thigh was yellow in life, but the thigh pattern is identical to that of adults. In adults, the iris is golden above and below, whereas in juveniles the iris is metallic buffy.

At Camp Perrin, *E. w. wetmorei* was abundant in trees about the settlement, and the ringing two-note call made up a prominent portion of each night's choruses. Specimens, on the other hand, were difficult to secure; the three juveniles were taken by Mr. Leber from arboreal bromeliads, whereas the adult male (ASFS V2684) was obtained while calling on a *Sansevieria* leaf only one foot off the ground. Like the equally arboreal Cuban *E. varians*, *E. wetmorei* occasionally can be collected when it calls from low vocalizing sites.

As pointed out above, all known localities for *E. w. wetmorei* are associated with the lower slopes of the Massif de la Hotte. The locality near Miragoâne is unlocatable on any current map, so it is possible that this specimen came from a lower elevation than the other *E. w. wetmorei*; the elevation at Camp Perrin is 1000 feet (305 meters) and that at Fond des Nègres is 730 feet (240 meters). Figure 1 shows localities for specimens of *E. w. wetmorei*.

Specimens examined: Haiti, Dépt. du Sud, Camp Perrin, 6 (ASFS X2684, X2897, X2962, X2993-95); Fond des Nègres, 3 (USNM 72617 — holotype; USNM 72618-19 — paratypes); Butte, nr. Miragoâne, 1 (MCZ 35199).

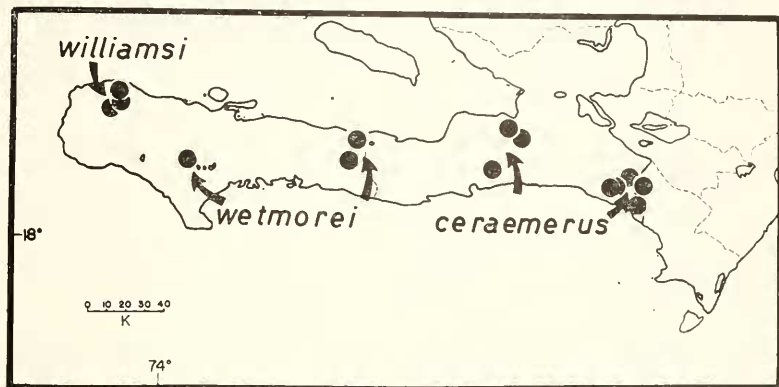


Fig. 1. Map of southwestern Haiti, showing the Tiburon Peninsula. Localities for *E. wetmorei wetmorei*, *E. w. williamsi*, and *E. w. ceraeumerus* are shown as solid circles.

ELEUTHERODACTYLUS WETMOREI CERAEMERUS new subspecies

Holotype: MCZ 36101, an adult female, from Thiote, Dépt. de l'Ouest, Haiti, one of a series collected April 1962 by G. Whiteman.

Paratypes: MCZ 36097-100, 36102-05, USNM 146614, same data as holotype; MCZ 37216-18, same locality as holotype, summer 1962, G. Whiteman; CM 38550-55, same locality as holotype, June 1962, G. Whiteman; MCZ 36107-11, Tête à l'Eau, near Saltrou, Dépt. de l'Ouest, Haiti, April 1962, G. Whiteman; CM 37786, MCZ 34501, Marbial, 21 km NE Jacmel, Dépt. de l'Ouest, Haiti, 20-21 April 1961, L. Whiteman; AMNH 44034, ridge of Massif de la Selle, just south of Savane Zombi, on Saltrou road, "4500 feet." Dépt. de l'Ouest, Haiti, 6 April 1935, W. G. Hassler; MCZ 34503, AMNH 44050, Colombia (= Colombier), Dépt. de l'Ouest, Haiti, 6 April 1935, W. G. Hassler; MCZ 34502, AMNH 44036-37, La Mahot, near Colombia (= Colombier), Dépt. de l'Ouest, Haiti, 7 April 1935, W. G. Hassler; MCZ 31733, Boutilier Road, Dépt. de l'Ouest, Haiti, 9 August 1959, E. E. Williams

and A. S. Rand; MCZ 37141, La Boule, Dépt. de l'Ouest, Haiti, 18 April 1960. J. A. Rivero; ASFS V2711, 7 km SE Los Arroyos, 2200 feet (720 meters). Pedernales Province, República Dominicana, 29 June 1964, R. Thomas.

Definition: A subspecies of *E. wetmorei* characterized by anterior and posterior faces of thigh bright orange with a pattern of black spots rather than a reticulum, and groin orange with scattered black dots and outlined by black (Fig. 2B).

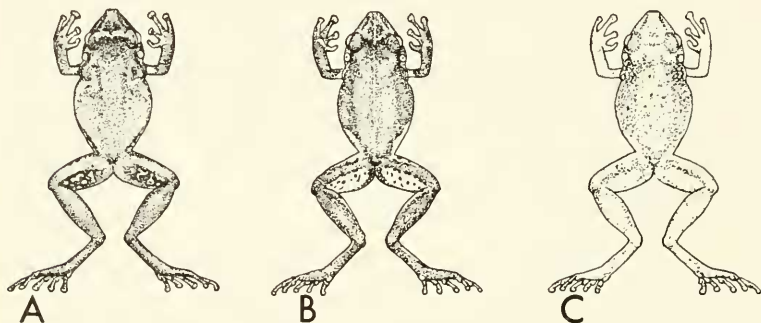


Fig. 2 Three subspecies of *E. wetmorei*, as follows: A, *E. w. wetmorei*, ASFS X2962, Camp Perrin, Dépt. du Sud, Haiti; B, *E. w. ceraemerus*, MCZ 36101, holotype, Thiotte, Dépt. de l'Ouest, Haiti; C, *E. w. williamsi*, MCZ 37757, holotype, Marfranc, Dépt. du Sud, Haiti.

Description of holotype: An adult female with the following measurements: snout-vent length 35.6, head length 12.7, head width 14.5, longitudinal diameter of tympanum 2.5, longitudinal diameter of eye 4.5, naris to eye 4.0, femur 14.7, tibia 17.5, fourth toe 13.8. Head distinctly broader than long; snout truncate, with nares conspicuous at anterior end of canthus rostralis; diameter of eye slightly longer than distance from naris to anterior corner of eye; diameter of tympanum much less than diameter of eye, distance from tympanum to eye slightly less than diameter of tympanum. Interorbital distance 5.4, greater than diameter of eye. Digital discs present, large, those on digits 2, 3, and 4 only slightly smaller than area of tympanum. Fingers short, basally with a very small web, 3-4-2-1 in order of decreasing length; subarticular tubercles pale, concolor with palmar surface of hand. Toes moderately long, only very slightly webbed basally, 4-3-5-2-1 in order of decreasing length; subarticular tubercles prominent, concolor with plantar surface. Heels overlap strongly when femora are held at

right angles to body axis. Inguinal glands absent. Dorsum smooth. Throat and chest smooth, belly coarsely granular. Dorsal surface of fore- and hindlimbs smooth. Posterior and ventral faces of thighs covered with moderately sized juxtaposed flattened granules. Tongue large, free and notched behind, its greatest width equal to about two-thirds of that of floor of mouth. Vomerine teeth in two small, almost diagonal patches, enclosed within the median margins of the choanae, separated from them by a distance equal to the diameter of a choana, the two patches separated medially by a distance equal to about half the length of a single vomerine patch.

Coloration and pattern of holotype: Dorsum (as preserved) brown and without pattern except for a vaguely discernible paler interocular bar and a very faint middorsal hairline; hindlimbs concolor with dorsum; concealed surfaces of thigh, crus, and pes paler (presumably orange in life) with scattered dark brown dots and outlined with a faintly darker brown line, punctate with dark brown dots along its length; groin spot pale (presumably orange in life) with a few scattered dark dots on the left side (right side immaculate), the groin spot outlined by a vague darker line and sharply set off from the dorsal color; forelimbs dark brown, concolor with the dorsum but with a sharply distinct pale mark on the wrist and another at the forelimb insertion. Venter pale (presumably orange in life), heavily suffused with brown stippling on the sides anteriorly (anterior to the pale groin spot); throat densely stippled with dark brown; underside of forelimbs dark brown on antebrachium, pale on brachium. A pair of moderately prominent glandular areas on the posterior throat anterior to the level of the forelimb insertions.

Variation: The series of nine male *E. w. ceraemerus* has the following measurements (extremes and means): snout-vent length 28.5-33.4 (30.4), head length 9.8-11.8 (10.8), head width 10.8-12.6 (12.2), tympanum 1.7-2.0 (1.8), eye 3.4-4.0 (3.7), naris to eye 2.9-3.9 (3.5), femur 11.6-14.2 (13.2), tibia 14.5-15.9 (15.2), fourth toe 11.2-12.3 (11.7). Twenty females have the following measurements: snout-vent length 26.7-38.3 (34.4), head length 9.6-13.3 (11.9), head width 10.8-15.0 (13.5), tympanum 1.6-2.5 (2.1), eye 3.1-4.7 (4.1), naris to eye 3.2-4.5 (3.8), femur 11.9-16.8 (14.6), tibia 14.1-18.9 (17.2), fourth toe 10.4-14.3 (13.2).

As preserved, the paratypes agree well in color with the holotype, although some specimens are paler (tan rather than brown). In coloration, the concealed hindlimb surfaces and the groin spot are always sharply and conspicuously set off from the remainder of the hindlimb, and the pattern of these areas is regularly one of dots or

spots, never a reticulum as in *E. w. wetmorei*. At times the spots or dots are somewhat fused (MCZ 34501), but the condition never approaches that of the nominate subspecies. The groin spot may have some dark flecking within it, or it may be immaculate; in either case it is outlined dorsally by a dark and punctate line as in the holotype. Some specimens show a pale interocular bar (MCZ 36105), but this is not the regular condition in *ceraemerus*. A very fine median hairline is barely discernible in some specimens (USNM 146614), as it is in the holotype, but most frogs lack this pattern element. Other specimens (MCZ 36102) have some fine and vague stippling along the lower sides above the venter, but this condition likewise occurs only sporadically. Only those frogs which are dorsally as dark as the holotype have the sides of the venter anterior to the groin spot as darkly pigmented as does the holotype.

There are only two specimens from north of the Massif de la Selle, those from La Boule and Boutillier Road; the balance of the series is from the southern side of that massif. I do not know if the ranges of these two populations are continuously directly across the massif, but it does not seem likely, since my impression is that *E. wetmorei* is generally a frog of low to moderate elevations in forested situations. In any event, the two frogs from north of the La Selle agree in thigh pattern details with those from the southern slope except that the degree of fusion between the spots is greater than is customary for southern specimens. It seems quite likely that another subspecies will be found to inhabit the northern slopes of the La Selle and its associated ranges above Port-au-Prince; the thigh pattern of these northern specimens does not approach the reticulum of *E. w. wetmorei*.

Structurally, the paratypes agree with the holotype except that the buccal cavity of the latter is somewhat aberrant. In most specimens of *E. w. ceraemerus*, the vomerine patches are small, compact, and enclosed well within the inner margins of the choanae, separated from the choanae by a distance equal to that of one vomerine series and separated from each other by a similar distance. In the holotype, the vomerine patches are closer to one another than in the balance of the series.

Comparisons: Comparison of the subspecies *wetmorei* and *ceraemerus* is hardly necessary; the two forms can be easily distinguished by the pattern of the concealed surfaces — reticulate in *wetmorei*, dotted in *ceraemerus*. Size differences are difficult to assess, since the series of *E. w. wetmorei* is very small. *E. w. ceraemerus* seems the larger of the two forms.

Although there are no color data on most specimens of *E. w. ceraemerus*, Richard Thomas recorded the color in life of the Dominican specimen as follows: dorsum grayish tan (= putty colored), venter bright orange. Forearm insertions, pre- and post-femoral surfaces, and groin bright orange with black dotting. Undersides of legs and dorsal and ventral surfaces of feet bright orange; dark flecking roughly outlining region of contact between orange and tan on both limbs and groin.

Remarks: The abundance of specimens of *E. w. ceraemerus*, in contrast to the paucity of those of the nominate subspecies, is puzzling, although it is possible that the frog is more abundant or more easily secured on the southern slope of the Massif de la Selle than it is farther west. The Dominican specimen was collected while it was calling about ten feet above the ground in a coffee tree; others were heard calling in the same general region, but most were vocalizing high in the trees and thus were inaccessible. The scarcity of specimens from the Morne l'Hôpital above Pétionville is equally puzzling; the calls of this frog were commonly heard between Pétionville and Fermate, but there are only two specimens from this entire region. The species apparently is absent from the Sierra de Baoruco, where the dominant, moderately sized, more or less arboreal *Eleutherodactylus* is *E. armstrongi* Noble and Hassler. This species also occurs south of Port-au-Prince on the Montagnes Noires at Furcy, an area where *E. wetmorei* is absent. The Dominican specimen is from the extreme edge of the República Dominicana in what may well be considered the eastern extreme of the Massif de la Selle.

The altitudinal limits of *E. w. ceraemerus* vary from a low elevation of about 600 feet (200 meters) at Marbial to high elevations of about 4270 feet (1400 meters) near Savane Zombi. These elevations are greater than those of the nominate subspecies to the west. The name *ceraemerus* is derived from the Greek "keraia," a dot, and "meros," thigh, an illusion to the dotted concealed surfaces of the hindlimbs in this subspecies.

ELEUTHERODACTYLUS WETMOREI WILLIAMSI new subspecies

Holotype: MCZ 37757, an adult female, from Marfranc, Dépt. du Sud, Haiti, one of a series collected 26-27 December 1962 by Hill and Vuilleumier.

Paratypes: MCZ 37751-56, 37758-63, same data as holotype; MCZ 37587, Perine, near Jérémie, Dépt. du Sud, Haiti, December 1962, G. Whiteman; MCZ 37586, Carrefour Sanon, near Jérémie,

Dépt. du Sud, Haiti, December 1961, G. Whiteman; USNM 60627-35, Moron, Dépt. du Sud, Haiti, 20 December 1917, W. L. Abbott. MCZ 28599-600, Moron, Dépt. du Sud, Haiti, 24 December 1917, W. L. Abbott.

Definition: A subspecies of *E. wetmorei* characterized by complete absence of pattern on anterior and posterior faces of thigh and on groin spot (Fig. 2C).

Description of holotype: An adult female with the following measurements: snout-vent length 33.8, head length 11.8, head width 13.0, longitudinal diameter of tympanum 2.0, longitudinal diameter of eye 4.2, naris to eye 4.1, femur 14.2, tibia 16.9, fourth toe 13.1. Head distinctly broader than long; snout truncate, with nares conspicuous at anterior end of canthus rostralis; diameter of eye about equal to distance between naris and anterior corner of eye; diameter of tympanum much less than diameter of eye, distance from tympanum to eye equal to about one-half the diameter of tympanum. Interorbital distance 4.0, slightly less than diameter of eye. Digital discs present, large, those on digits 2, 3, and 4 only slightly smaller than area of tympanum. Fingers short, basally with a very small web, 3-4-2-1 in order of decreasing length; subarticular tubercles pale, concolor with palmar surface of hand. Toes moderately long, only very slightly webbed basally, 4-3-5-2-1 in order of decreasing length; subarticular tubercles prominent, concolor with plantar surface. Heels overlap strongly when femora held at right angles to body axis. Inguinal glands absent. Dorsum smooth. Throat and chest smooth, belly coarsely granular. Dorsal surface of fore- and hindlimbs smooth. Posterior and ventral faces of thighs covered with moderately sized, juxtaposed, flattened granules. Tongue elongate and narrow, free and notched behind, its greatest width equal to about one-half of that of floor of mouth. Vomerine teeth in two very small patches, well enclosed within the median margins of the choanae, separated from them by a distance equal to the length of one vomerine series, the two patches separated by a distance equal to the length of one vomerine patch.

Coloration and pattern of holotype: Dorsum (as preserved) pale tan, heavily stippled with brown on the trunk; head less densely stippled and with remnants of a pale interocular bar, outlined anteriorly and posteriorly by remnants of brown lines; upper surfaces of hindlimbs concolor with dorsum; concealed surfaces of thigh, crus and pes paler (presumably brightly colored in life) without any dark markings or outlining in darker; groin spot also paler and without dark markings or outlining; forelimbs tan, concolor with dorsum. Venter pale (presumably brightly colored in life), without

heavy stippling; throat unstippled but with a pair of darker glandular areas anterior to the forelimb insertions.

Variation: The single male *E. w. williamsi* has the following measurements: snout-vent length 32.7, head length 11.5, head width 13.1, tympanum 1.6, eye 4.0, naris to eye 3.9, femur 14.6, tibia 16.4, fourth toe 12.9; the series of 21 females has the following mensural data (extremes and means): snout-vent length 25.2-36.4 (32.7), head length 9.5-12.2 (11.5), head width 10.7-14.0 (13.1), tympanum 1.2-2.3 (1.8), eye 3.0-4.7 (3.9), naris to eye 3.1-4.5 (3.5), femur 11.2-15.2 (13.5), tibia 14.0-18.0 (15.7), fourth toe 9.1-14.0 (11.9).

The paratype series includes both long-preserved and freshly collected material; the former is the lot from Moron and the latter material is from the type locality and from near Jérémie. Many recent specimens have the more or less speckled dorsal aspect of the type, but this style of pattern does not occur in the Moron material, a fact which I assume is due to the length of time in preservation. The presence of the interocular bar is variable, but it is demonstrated in both old and new specimens; many frogs show this feature more diagrammatically than does the holotype. A median dorsal hairline occurs in some individuals (MCZ 37759, USNM 60629). There is never any indication of dark pattern on the concealed surfaces nor in the groin, these areas being quite pale; the freshly taken specimens still show a weak pinkish-orange wash on the thigh, so that I assume that these areas were quite brightly colored in life, presumably some shade of yellow or orange like the two other subspecies of *E. wetmorei*. Structurally, the paratypes agree very closely with the description of the holotype.

Comparisons: *E. w. williamsi* is easily distinguished from the nominate subspecies and *E. w. ceraemerus* since it lacks any indication of thigh or groin pattern. As preserved, the specimens of *williamsi* are regularly paler than those of the other subspecies, and it seems possible that there is a dorsal chromatic difference between *williamsi* and the other subspecies. *E. w. williamsi* does not appear to reach so large a size as does *ceraemerus* but exceeds slightly the maximum size recorded for *E. w. wetmorei*. The absence of detailed color data in life for *E. w. williamsi* hampers more detailed comparisons.

Remarks: *E. w. williamsi* occupies the extreme northwestern portion of the Tiburon Peninsula in Haiti. Its range, as now known, is circumscribed, with all localities being associated with the Monts Cartaches to the west of Jérémie. Altitudinally, *E. w. williamsi*

occurs somewhat lower than the two more eastern subspecies, from a low elevation of about 130 feet (40 meters) at Moron to 1440 feet (440 meters) at Carrefour Sanon; Perine is not locatable.

The distinct patternless condition of the western population was first recognized by Cochran (1941:76), who pointed out that the series from Moron was light in color; later, Shreve and Williams (1963:324) again commented that the Moron series lacked limb and groin markings, in contrast to their specimen from Boutillier Road (*ceraeimerus*). The new series in the Harvard collection amply confirms these differences and demonstrates that they are not due to fading or the age of the previously known material from this region. I take great pleasure in naming the far western subspecies of *E. wetmorei* for Dr. Ernest E. Williams, whose interest in Hispaniolan herpetology, sponsorship of field work on that Antillean island, and generous cooperation with others involved with Hispaniolan herpetological problems can be acknowledged only in a token fashion by the use of his name as a patronymic designation for this distinctive subspecies.

DISCUSSION

E. wetmorei is now known to be widely distributed along the length of the Tiburon Peninsula in Haiti; the altitudinal limits of the species indicate that it is an inhabitant of low to moderate elevations associated with the north and south flanks of the massifs de La Selle and de La Hotte. There is but one record from the República Dominicana, along the Dominico-Haitian border in the extreme eastern ranges of the Massif de La Selle. The species remains unknown from the Sierra de Baoruco proper. Doubtless many areas in Haiti whence *E. wetmorei* remains unknown will ultimately be found to be inhabited by this species; since the frog is predominantly arboreal, it is difficult to collect, and often the species has been heard vocalizing in areas where specimens were impossible to secure.

As in several other south island (*sensu* Williams, 1961) amphibians and reptiles, *E. wetmorei* has differentiated into a series of three distinct populations which are easily recognizable. Although there is really too little material to be certain, it is interesting that the specimens from Fond des Nègres agree with those from Camp Perrin on the southern slopes of the Massif de La Hotte farther to the west. Such a similarity is remarkably like that shown in *Sphaerodactylus copei* Steindachner, wherein material from the vicinity of Miragoâne (and thus near the Fond des Nègres) is like

S. c. cataplexis Schwartz and Thomas (at Camp Perrin) rather than like *S. c. picturatus* Garman (at Jérémie). Apparently the low and forested pass across the Massif de La Hotte in the Aquin-Fond des Nègres-Miragoâne region has allowed passage of some southern subspecies to the north coast, thereby more or less separating the two north coast populations (*S. c. picturatus* and *S. c. copei* separated by *S. c. cataplexis*, just as *E. w. williamsi* and *E. w. cerae-merus* are separated by *E. w. wetmorei*; see Schwartz and Thomas, 1965, for details of gecko distributions in this region). Such similarities seem hardly due to chance.

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